

Abstract

A pair of mating connectors includes a receptacle having an insulative housing and at least one conductive receptacle contact with a pair of spaced walls forming a plug contact receiving space. The plug connector has an insulative housing and at least one conductive contact having a pair of spaced walls which converge to form a projection engageable in the plug receiving space of the receptacle contact. In each case, the spaced walls are joined by a bridging structure that unites the walls. The plug and receptacle contacts are retained in the respective housings by engagement of opposed lateral edge portions of the contacts with the housings in a manner to enhance heat dissipation by convection by maintaining substantial portions of the contacts spaced from the housing walls and from each other. The bridging structure may include a retention element for engaging respective connector housings to retain the contact in the housings. The open structure of both the receptacle and plug contacts enhances heat dissipation and allows flexibility in achieving desired contact normal forces. The contact construction is especially useful for electronic power connectors. The electronic power connectors can also be modified to accommodate connections for an external AC power supply. The connector housing incorporating the AC power connection capability can accommodate different forms of AC power supply termination contacts, such as spade-type contacts having a spring-like plug for receiving discrete quick connect socket terminals or contacts for connection to bus bars.